

What is claimed is:

1           1.     Fluid sealing apparatus for operation with an endoscopic instrument at  
2 a surgical site, the apparatus comprising:

3           a body having a central bore dimensioned to receive an endoscopic  
4 instrument therein, the bore extending through the body between distal and  
5 proximal ends thereof;

6           an element disposed about the body near one of the distal and proximal ends  
7 thereof for selectively expanding laterally outwardly about the body; and

8           a fluid seal disposed about the body near the other of the distal and proximal  
9 ends having an aperture therethrough substantially aligned with the central bore  
10 through the body, and having an inner dimension resiliently and flexibly disposed  
11 to receive an endoscopic instrument therein in sliding fluid-sealing engagement  
12 therewith.

1           2.     The apparatus according to claim 1 in which the element includes a  
2 balloon of substantially toroidal-shape attached to an outer surface of the body near  
3 the distal end thereof; and comprising:

4           a fluid passage in a wall of the body in communication with the balloon and  
5 extending along the wall toward the proximal end of the body for connection to a  
6 source of fluid under pressure for selectively inflating the balloon.

1           3.     The apparatus according to claim 1 in which the fluid seal includes a  
2     generally toroidally-shaped member removably attached in fluid-sealing  
3     engagement with the proximal end of the body.

1           4.     An endoscopic surgical procedure performed through an access port,  
2     the procedure comprising:

3           forming an incision in tissue;

4           dissecting tissue to form an anatomical space in tissue in communication  
5     with the incision;

6           inserting the access port within the incision and anatomical space;

7           laterally outwardly expanding the portion of the access port inserted within  
8     the incision to form fluid-sealing engagement with tissue about the incision;

9           inserting an endoscopic instrument into the anatomical space through the  
10     access port;

11          forming a fluid-tight seal in the access port in response to insertion of the  
12     endoscopic instrument in the access port;

13          insufflating the anatomical space with fluid under pressure during formation  
14     of the fluid-tight seal; and

15          disabling a fluid-tight seal within the access port to permit deflating the  
16     anatomical space inflated with fluid under pressure upon removal of an endoscopic  
17     instrument from within the access port.

1           5.     An access port kit including:  
2           a body having a central bore therethrough between distal and proximal ends  
3 thereof;  
4           an element disposed about the body near the distal end thereof for  
5 selectively expanding laterally outwardly from the body;  
6           a plurality of resilient fluid seals, each selectively attachable to the proximal  
7 end of the body for forming a fluid-tight seal with the body near the proximal end  
8 thereof, each of the fluid seals including a resilient aperture therethrough of  
9 selected different dimensions disposed to axially align with the central bore in the  
10 body in position attached to the proximal end of the body.

1           6.     An access port kit including:  
2           a body having a central bore therethrough between distal and proximal ends  
3 thereof;  
4           an element disposed about the body near the distal end thereof for  
5 selectively expanding laterally outwardly from the body;  
6           at least one resilient fluid seal for attachment in fluid-tight engagement with  
7 the body near the proximal end thereof, and including a resilient aperture  
8 therethrough of selected dimension to axially align with the central bore upon  
9 attachment to the body; and

10            an auxiliary resilient fluid seal for insertion within the resilient aperture of  
11   the resilient fluid seal to form a fluid-tight seal therewith, including an aperture  
12   therein of smaller dimension than the resilient aperture of the resilient gas seal for  
13   forming a sliding, substantially fluid-tight seal about a cylindrical member of  
14   sectional dimension larger than the aperture in the auxiliary resilient fluid seal and  
15   smaller than the aperture in the resilient fluid seal.